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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DANG, KHANH NMN

ART UNIT

PAPER NUMBER

2181

DATE MAILED: 09/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

PRC

Office Action Summary

Application No.

09/822,836

Applicant(s)

KIM, JIN-SOO

Examiner

Khanh Dang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-18 are directed to an apparatus. However, the essential structural cooperative relationships between elements recited in the claims have been omitted, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al.

At the outset, it is noted that similar claims will be grouped together to avoid repetition in explanation.

As broadly drafted, these claims do not define any structure that differs from Sakakibara et al. With regard to claim 1, 2, 10, and 11, Sakakibara et al. discloses an arbiter comprising: a bus request receiver (including request registers, for example)

connected to a plurality of master devices (requesters) for receiving bus request inputs from a plurality of master devices (requesters in Sakakibara et al.); a priority level extractor for outputting priority level signals indicating predesignated priority levels corresponding to the plurality of master devices (Sakakibara et al., as in any system involving arbitration, each master or requester must carry a priority ID indicating a predetermined priority scheme along with other data), if the bus requests are input through the bus request receiver (including request registers), and generating a priority level summation signal indicating all priority levels of the bus requests based on the output priority level signals (all masters or requesters each having its own level of priority must be ready before arbitration); a priority output unit for outputting priority levels in order of decreasing priority based on the priority level summation signal generated by the priority level extractor (a master or requester with highest level of priority ready first in a queue); a priority mapper comprising a master device identifier output unit (a decoder is used in Sakakibara et al.) for extracting identifiers (priority bits) of the plurality of master devices (requesters) submitting bus requests based on the priority level signals and outputting the extracted master device identifiers (priority bits) based on the order of the priority levels output from the priority output unit; and an arbitration circuit (including a priority logic in Sakakibara et al., for example) for granting access to a bus, to one of the plurality of master devices (requesters) corresponding to the identifier (priority bits) output from the priority mapper. With regard to claims 3, 4, 12, and 13, the bus request receiver comprises a plurality of input ports (QUE0-3, for example) connected to the plurality of master devices (requesters) for receiving bus

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request inputs from the plurality of master devices, and a plurality of registers (also registers in Sakakibara et al.) provided in the plurality of input ports for storing priority levels (a predetermined priority level assigned to each master or requester) designated for the plurality of input ports (see also explanation regarding claim 1 above).

Allowable Subject Matter

Claims 5-9 and 14-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

U.S. Patent Nos. 5,870,560 to Zulian, 6,434,645 to Parvin et al., and 6,199,124 to Ramakrishnan et al. are cited as relevant art.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.



Khanh Dang
Primary Examiner